

SCANNING ELECTRON MICROSCOPE AND METHOD OF CONTROLLING SAME

ABSTRACT OF THE DISCLOSURE

A scanning electron microscope has an electron gun producing the electron beam, an objective lens for sharply focusing the beam onto the specimen, a tilting mechanism for tilting the specimen relative to the beam, and a power supply for applying the negative voltage to the specimen. This microscope further includes a cylindrical shield electrode mounted to surround the electron beam path between the objective lens and specimen. A front-end electrode is insulatively mounted to the front-end portion of the shield electrode that is on the specimen side. An electric potential substantially identical to the electric potential at the polepieces of the objective lens is applied to the shield electrode. An electric potential substantially identical to the potential at the specimen is applied to the front-end electrode.